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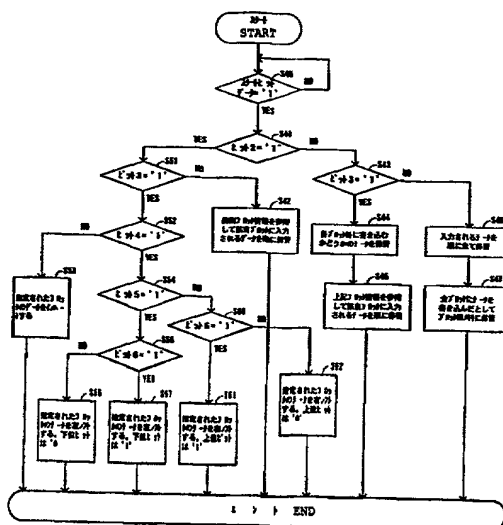
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国際調査報告書

(54) Title: METHOD OF SYNCHRONOUS SERIAL COMMUNICATION AND SYSTEM FOR SYNCHRONOUS SERIAL COMMUNICATION

(54) 発明の名称 同期式シリアル通信方法及び同期式シリアル通信システム



S40...START DATA BIT = "1"  
S41...INVERT DATA IN SPECIFIED BLOCK  
S42...SHIFT DATA IN SPECIFIED BLOCK TO LEFT, LSB = "0"  
S43...SHIFT DATA IN SPECIFIED BLOCK TO LEFT, LSB = "1"  
S44...SHIFT DATA IN SPECIFIED BLOCK TO RIGHT, MSB = "1"  
S45...REFER TO PREVIOUS BLOCK INFORMATION AND STORE DATA FOR ASSOCIATED BLOCKS IN SEQUENCE  
S46...STORE DATA ABOUT WHETHER TO WRITE INDIVIDUAL BLOCKS  
S47...REFER TO ABOVE BLOCK INFORMATION AND STORE DATA FOR ASSOCIATED BLOCKS IN SEQUENCE  
S48...SHIFT DATA IN SPECIFIED BLOCK TO RIGHT, MSB = "0"  
S49...STORE ALL INPUT DATA IN SEQUENCE  
S50...STORE DATA ASSUMING THAT ALL BLOCKS ARE WRITTEN  
S51...BIT 2 = "1"  
S52...BIT 3 = "1"  
S53...BIT 3 = "1"  
S54...BIT 4 = "1"  
S55...BIT 5 = "1"  
S56...BIT 6 = "1"  
S57...BIT 6 = "1"  
S58...BIT 6 = "1"  
S59...BIT 6 = "1"  
S60...BIT 6 = "1"

## (57) Abstract

A method of synchronous serial communications and a system for synchronous serial communications are provided for increasing the transfer rate of serial data. In full mode, ordinary synchronous serial communications are carried out. In block mode, serial data of a predetermined length to be transmitted is divided into a plurality of blocks, block information about which block is to go first is transmitted, and the data in the block designated by the block information is then transmitted. In burst mode, the next block information is compared with the previously sent block information, and the coincidence of the two allows the data of the block to be transmitted with block information omitted. Mode identification information indicative of the current transmission mode accompanies data to be transmitted.

## ABSTRACT

This invention provides a method for synchronous serial communication and a system for synchronous serial communication capable of increasing the speed of the transmission of serial data. The full mode is a mode under which the conventional synchronous serial communication is achieved. The block mode is a mode which is introduced if transmission of serial data having a specific length is required, and under which data to be transmitted are divided into plural blocks, and firstly transmitted is block information that notifies which blocks out of the entire blocks will be transmitted, and then transmitted are the data included in the blocks notified by the block information. The burst mode is a mode under which the block information which is currently transmitted is compared with the block information which was previously transmitted, and, if the two are the same, transmission of the data is introduced, while the block information being omitted. The system attaches mode information notifying the mode through which data will be transmitted, to the data to be transmitted.